

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) An electron beam exposure method in which an article subjected to exposure and an electron beam irradiation spot are moved relative to each other at a continuous speed;

wherein the article is exposed at a plurality of irradiation intensities of an electron beam by changing a transmittance of an electron optical system for forming the electron beam irradiation spot on the article,

the transmittance of the electron optical system is changed by changing a state of hitting of a blanking mask by the electron beam,

the state of hitting of the blanking mask by the electron beam is changed by controlling a state of deflection of the electron beam by a blanking deflector,

the state of deflection of the electron beam by the blanking deflector includes a first deflection state in which the electron beam is deflected in a first direction by the blanking deflector such that a whole of the electron beam hits the blanking mask, a second deflection state in which the electron beam is deflected in a second direction by the blanking deflector such that the electron beam does not hit the blanking mask at all and a third deflection state in which the electron beam is not deflected by the blanking deflector such that a portion of the electron beam hits the blanking mask.

2.-4. (Cancelled).

5. (Currently Amended) The electron beam exposure method as claimed in ~~Claim 2~~claim 1, wherein the irradiation intensity obtained at the time a portion of the electron beam hits the blanking mask is not more than 97% of that obtained at ~~the a~~ time a whole of the electron beam hits the blanking mask.

6. (Currently Amended) The electron beam exposure method as claimed in ~~Claim 2~~claim 1, wherein a plurality of transmission shapes of the electron beam are formed on the blanking mask such that the exposure is performed at a plurality of the irradiation intensities of the electron beam.

7. (Original) The electron beam exposure method as claimed in Claim 6, wherein when a direction of deflection of the electron beam is changed continuously by a blanking deflector, the irradiation intensity of the electron beam changes discontinuously.

8. (Original) The electron beam exposure method as claimed in Claim 6, wherein when a direction of deflection of the electron beam is changed continuously by a blanking deflector, the irradiation intensity of the electron beam changes continuously.

9. (Original) The electron beam exposure method as claimed in Claim 6, wherein when the blanking mask is moved continuously, the irradiation intensity of the electron beam changes continuously.

10. (Original) The electron beam exposure method as claimed in Claim 1, wherein a transmission shape of an aperture is changed continuously such that the irradiation intensity of the electron beam changes continuously.

11. (Original) The electron beam exposure method as claimed in Claim 1, wherein after the exposure of the article, a pattern is formed on the article by one of wet etching and dry etching.

12. (Original) The electron beam exposure method as claimed in Claim 1, wherein a chemically amplified resist layer is formed on the article.

13. (Original) The electron beam exposure method as claimed in Claim 1, wherein one of a pit and a line or both of the pit and the line are formed spirally on the article by the exposure.

14. (Original) The electron beam exposure method as claimed in Claim 1, wherein the article is used for manufacturing a master of an optical information recording medium.

Application No.: 10/528,548
Amendment Dated: August 18, 2006
Reply to Office Action of: June 27, 2006

AOY-3989US

15.-16. (Cancelled).